Congress of the United States
Washington, DC 20515

May 6th, 2011

President Barack Obama
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

Dear President Obama:

We are writing to respectfully urge you to press the Russian Federation to cease its plan to produce medical isotopes using highly enriched uranium (HEU) because it is in direct conflict with U.S.-Russia and U.N. nonproliferation agreements embodied in the Joint Statement by you and Russian President Medvedev in 2009, UN Security Council Resolution 1887 in 2009, and the Work Plan of the 2010 Nuclear Security Summit. Moreover, this plan poses a direct economic threat to nascent domestic efforts to develop a stable source of medical isotopes using low enriched uranium, thereby endangering the future of American jobs in this sector.

The United States currently imports 100% of the critical isotope molybdenum-99, which is used in approximately 50,000 medical diagnostic procedures every day in our country. Its uses include procedures to detect heart disease, cancer, and other diseases. Currently, the vast majority of the molybdenum-99 imported into the United States is produced using HEU. Due to recurrent failures in the global supply network, the United States has faced shortages of molybdenum-99. During periods of peak molybdenum-99 shortage in 2010, tens of thousands of patients each day failed to receive the medical care they needed.

The American Medical Isotopes Act of 2010 is intended to create a domestic source of medical isotopes made from the proliferation-resistant low enriched uranium sources, consistent with the conclusion of a 2009 National Academy of Sciences study that we can achieve full phase-out of HEU-based medical isotope production by 2016 to 2019. This legislation was coauthored by Representative Markey, and voted for by Representative Fortenberrry when it passed the House by 400 votes to 17 in 2010. There is once again legislation pending in this Congress. In December, 2010, a South African company delivered the first large-scale shipment of molybdenum-99 produced with low enriched uranium targets to the United States. If South Africa can do it, so can we. There are several promising new technologies being developed by U.S. companies for producing medical isotopes without the use of HEU.

As you know, in a July 6, 2009 Joint Statement, you and President Medvedev said:

> "We declare an intent to broaden and deepen long-term cooperation to further increase the level of security of nuclear facilities around the world, including through minimization of the use of highly-enriched uranium in civilian applications and through consolidation and conversion of nuclear materials" (our emphasis added).

Broad international support for the phase-out of HEU to produce medical isotopes came in the form of United Nations Security Council Resolution 1887, on September 24, 2009:

> "*Calls upon* all States to manage responsibly and minimize to the greatest extent that is technically and economically feasible the use of highly enriched uranium for civilian purposes, including by working to convert research reactors and radioisotope production processes to the use of low enriched uranium fuels and targets" (our emphasis added).

The Russian Federation strengthened its commitment to phase out the use of HEU for medical isotope production at the Nuclear Security Summit that you hosted last year. In the April 13, 2010, Work Plan of the Summit, Russia signed on to the following statement:

> "Participating States, as appropriate, will collaborate to research and develop new technologies that require neither highly enriched uranium fuels for reactor operation nor highly enriched uranium targets for producing medical or other isotopes, and will encourage the use of low enriched uranium and other proliferation-resistant technologies and fuels in various commercial applications such as isotope production" (our emphasis added)

However, in an apparent breech of its commitments, in September 2010 the Russian Federation announced its initiative to use HEU to produce the medical isotope molybdenum-99 for the global market at the Dimitrovgrad-based Research Institute of Atomic Reactors.[1] This decision raises nuclear nonproliferation concerns and sends a conflicting message to the international community from what should be one of our strongest global partners in achieving nuclear security.

Russia's production of medical isotopes using HEU also puts at a disadvantage US companies who are seeking to develop commercially competitive medical isotope solutions without using HEU. Because the molybdenum-99 supplied by Russia is likely subsidized by the Russian government, its cheaper price could jeopardize the economic viability of any medical isotopes produced in the United States without using HEU. This is an economic security issue as well as a national security issue.

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[1] http://www.newswire.ca/en/releases/archive/December2010/23/c7455.html

Please ask Russia to make good on its recent commitments to phase out the use of HEU for making medical isotopes and other civilian uses and to stop subsidizing these efforts that risk our mutual non-proliferation goals. By persuading Russia to take these steps, you can both bolster our nuclear security and level the playing field for an American medical isotope industry to develop.

Sincerely,

Rep. Edward Markey

Rep. Jeff Fortenberry